REMARKS

Applicants maintain as pertinent the entirety of their previous submissions in their responses to the Office Actions mailed March 8, 2006 and August 9, 2006.

It is noted that the Examiner now relies on the combination of Xu (US2002/0114322), Huitema (IETF Working Document –MIDCOM Scenarios) and a newly cited reference, Solle (US2003/0009561), as the basis for his continued rejection of the claims under 35 U.S.C. 103(a). Despite this, the previous submissions remain pertinent because it is submitted that one skilled in the art would not contemplate combining the disclosures of Xu and Huitema never mind adding Solle to the mix. Furthermore, even if one skilled in the art did attempt to combine Xu and Huitema, it would not result in the arrangement of features suggested by the Examiner and would not therefore enable the disclosure of Solle to be applied thereto to arrive at the claimed invention.

The Examiner acknowledges that Xu does not disclose:

i)   a middlebox device in the network;

ii)   using the identity-providing node to determine the identity of a first NAT/firewall connected to said one entity in its respective one of the plurality of address realms; and

iii)   send the identity of the NAT/firewall to the control node.

Presumably, these features are to be found in one or other of Huitema or Solle.

Huitema's contribution to the art is that it discloses that a NAT is a middlebox. The Examiner also makes references to SDP messages etc. as taught by Huitema, but these references do not directly address whether any of the features of the claimed invention not taught by Xu are derivable from Huitema. The same is true of

the Examiner's discussion of Solle. The fact that Xu, Huitema and Solle are analogous art is not in itself sufficient grounds to motivate one skilled in the art to combine the disclosures of these references to arrive at the claimed invention. Regrettably, the Examiner's stated grounds are difficult to decipher such that the applicants cannot see where in either (or both) of Huitema or Solle one skilled in the art finds the specific features acknowledged as not being taught by Xu. The general references to SDP messaging in Huitema and the reference to public addressing of NATs in Solle fails to meet the burden incumbent on the USPTO to establish a prima facie case of obviousness by identifying where in the prior art of record one can find the limitations of the presently claimed invention.

In any event, the Examiner's characterization of what Xu does and does not teach is not entirely accurate and, in fact, contradicts the content of the expert opinion provided with the response to the office action mailed August 9, 2006.

Xu does not disclose:

a)   "receiving a control message at a *middlebox*-identity-providing node". The control message in Xu is received at a proxy server that interrogates a directory server to determine another proxy server for a destination client device. So, the control message in Xu is not received at a middlebox-identity-providing node as claimed.

b)   "using the *middlebox*-identity-providing node to determine the identity of a first *middlebox* connected to said one entity in its respective one of the plurality of address realms". The Examiner has already acknowledged that Xu does not disclose "*using the identity-providing node to determine the identity of a first NAT/firewall connected to said one entity in its respective one of the plurality of address realms*", but the claimed invention further requires that it is the *middlebox*-identity-providing node that performs this step not merely an identity providing node as taught by Xu, thereby extending the differences between what is taught by Xu and the claimed invention.

c)   "sending said (first middlebox) identity to a middlebox control node". The call control manage 'CCM' server 18 of Xu is neither a firewall or a NAT and is not a middlebox as this term can be reasonable construed in the context of both the present invention and Huitema for that matter.

d)   "enable said middlebox control node to send middlebox control messages to said first middlebox". The CCM 18 is not a middlebox.

It can therefore be seen that Xu does not teach many of the limitations of the claimed invention and these are not clearly suggested or derivable from the disclosures of Huitema or Solle for the reasons stated above.

If the Examiner is of the view that these features can be found in Huitema and/or Solle, he is requested to more clearly and explicitly indicate where one skilled in the art may find such features. General references to SDP messaging in Huitema and public addressing of NATs in Solle does not enable the applicants to comprehend the Examiner's continued rejection of the claims under 35 U.S.C. 103(a).

Notwithstanding the foregoing, one skilled in the art would not seriously contemplate combining the disclosures of Xu and Huitema and, by extension, combining the disclosures of Xu and Huitema with that of Solle.

Paragraph 0049 of Xu describes 'When initiating a media session the first client, client 30(a) for example, may provide the proxy server with which the first client 30(a) is registered, proxy server 14(a) for example, with identity of the second client to which it would like initiate a media session, client 30(d) for example. The proxy server 14(a) then interrogates the directory server 20 to determine with which proxy server the second client 30(d) is registered, proxy server 14(b) for example. The two proxy servers 14(a) and 14(b) then facilitate the exchange of messages for setting up the media session, for communicating other messages representing media session negotiation between each of the first client 30(a) and the second

client 30(d), and for directing each of the first client 30(a) and the second client 30(d) to route media datagrams to the CCM server 18 during the media session'. The function of each of the proxy servers 14(a) and 14(b) therefore is to interrogate the directory server 20 to determine with which proxy server another client device is registered. The function of the directory server 20 is to provide the identity of the proxy server with which said another client device is registered. None of the proxy servers 14(a) and 14(b) or the directory server 20 operates to identify either of the NAT/firewalls 32(a) or 32(b) and to provide this identify to the CCM server 18.

Thus, what Xu describes is quite different in a number of respects to the invention as described in claim 1 In fact, it is clear that, since the NAT/firewalls 32(a) and 32(b) operate to perform address translation in a conventional manner, there is no requirement to send control messages from a middlebox control node as required by claim 1 and thus no motivation to look to Huitema and/or Solle.

Furthermore, if any of the devices in the system described in Xu did operate as contended to identity a middlebox associated with an entity and to provide the middlebox's identity to a middlebox control node such that the middlebox control node could send middlebox control messages to said middlebox, the problem identified in paragraph 0056 of Xu would not arise, whereby 'because the second client 30(d) is on the private network 34(b) and can only communicate with the proxy server 14(b) through the NAT server 32(b), the proxy server 14(b) may not be able to initiate the sending of the media session signaling message to the second client 30(d) but instead may have to wait for the second client 30(b) to poll the proxy server 14(b) for the media session signaling message or to update its registration with the proxy server 14(b) such that the proxy server 14(b) can initiate the media session signaling message as a reply frame to the registration update frame such that the media session signaling message will be routed to the second client 30(d) through the NAT server'. The existence of the foregoing problem confirms that the system of Xu does not operate in the manner suggested since, if it did so, the problem would not occur and that one skilled in the art would find no motivation to alter its operation

using the disclosures of Huitema or Solle because, to do so, would go against the prime motivation for providing the arrangement disclosed by Xu.

Paragraph 0051 of Xu does not disclose using the NAT/firewall identity providing node to determine the identity of a NAT/firewall connected to said one entity in its respective one of the plurality of address realms. What paragraph 0051 states is that 'Step 36 represents the first client 30(a) sending a media session signaling message to the proxy server 14(a) to which the first client 30(a) is registered. The media session signaling message may be a SIP compliant "Invite" message and may identify: 1) the second client 30(d) as the client with which the first client 30(a) would like to initiate a media session, and 2) a first client network address established by the first client 30(a) for receipt of media datagrams during the media session. The first client network address may include the IP address of the first client 30(a), which is a private network address, and a first client port number assigned to the media session by the first client 30(a)'. Since the address received by the proxy server 14(a) comprise a private network address of the first client 30(a), it is unclear how the proxy server 14(a) uses this to determine the identity of NAT/firewall 32(a) or 32(b). In fact, it does not since no useful purpose would be served by its doing so. Furthermore, nowhere in Xu is it described that any of the proxy servers 14(a) or 14(b) or the directory server 20 sends the identity of the NAT/firewall 32(a) or 32(b), determined by it, to the CCM server 18. As already indicated, the NAT/firewall 32(a) or 32(b) provides its own identity to the CCM server 18 through the address translation mechanism.
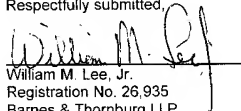
The only contribution considered as being offered by Huitema is that it discloses that a NAT may be a middlebox. Therefore, even if one skilled in the art replaced NATs in the system of Xu with middleboxes, it would not result in the combination of features (of claim 1) alleged by the Examiner. In fact, it would make no difference to the claimed structure at all save for the reference to middleboxes rather than NATs. Therefore, one skilled in the art would not seriously contemplate

combining Xu and Huitema (or Solle) and, even, if he did, it would not enable the skilled person, even with the disclosure of Solle, to arrive at the claimed invention.

In view of the foregoing, it is respectfully submitted that this application is now in condition for allowance.

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